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ABSTRACT

This study updates and adds to data presented in a March 1986 study on the dropout problem in Boston (Massachusetts) Public Schools. The current study has the following four major parts: (1) updates to student loss data for the entire 1985-86 school year; (2) demographic studies of dropouts for that period: analyses by gender, race, grade, district, and school; (3) updates to the cohort analyses for the 1985 graduating class; and (4) new cohort analyses done separately by race for the four graduating cohort years 1982 through 1985. A brief discussion of the implications for future research concludes the study. Among the study's tentative conclusions are the following: (1) there are many different subgroups among those who drop out; (2) more informative dropout categories must be developed; (3) a study is needed comparing students who have dropped out with those who have not; and (4) cohort and annual rate studies should be done annually. (PS)

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A WORKING DOCUMENT ON THE DROPOUT PROBLEM IN BOSTON PUBLIC SCHOOLS 1986 UPDATE

October 1986

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A Working Document on the Dropout Problem in Boston Public Schools : 1986 Update

OCTOBER 1986

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Acknowledgements

This study was conducted by a research team comprised of Dr. Yohel Camayd-Freixas, Director of the Office of Research & Development, and Dr. Leslie Horst, Senior Research Analyst of R&D's Department of Applied Research & Information. Graphic analyses were developed by Jeff Harris, Analyst/Psychometrics in R&D's Department of Educational Testing, and word processing and layout were conducted by Mary White, Office of Research & Development.

Executive Summary

This study both updates and adds to the data presented in our earlier study, "A Working Document on the Dropout Problem in Boston Public Schools", which was issued in May 1986. After a brief introduction, the present study has four major parts:

(1) Updates to student loss data for the entire 1985-1986 school year.

(2) Demographic studies of dropout for the 1985-1986 school year: Analyses by gender, race, grade, district, and school.

(3) Updates to the cohort analyses for the 1985 graduating class cohort reflecting complete data for the 1985-1986 school year.

(4) New cohort analyses done separately by race for the four graduating cohort years 1982 through 1985.

A brief discussion of the implications for future research concludes the study.

I. Updates to 1985-1986 Student Loss Data

- Of 20,213 students enrolled in grades 9-12 in 1985-1986, 14.3% dropped out and 1.4% were probable dropouts, for a total of 15.7%. This is a reduction from 16.4% in 1984-1985 and 16.9% in 1983-1984, which lends support to the notion that BPS dropout rates may be stabilizing.

- Breakdowns of the student loss categories show that dropping out due to being over 16 is by far the most frequently occurring category. Since all students turn 16 this is of little predictive value, but serves to highlight the need for new dropout categories.

- Comparison of annual student loss rates over a four year period suggests that the annual dropout rate may be stabilizing (though cohort data seem to contradict this idea).

II. Who Drops Out: 1985-1986 (New Data)

- Of students who dropped out, approximately 41% were female and 59% were male; the difference was highly statistically significant, and the pattern was identical for the previous year.

- The racial percentages among the 1985-1986 dropouts were as follows: Black 48.6%; White 27.2%; Asian 5.4%; Hispanic 18.4%; and other 0.4%. The figures for

1984-1985 were similar.

- Dropout rates for Blacks, Whites, and others were closely proportional to student enrollments in those three groups.

- The proportion of dropouts among Asians was substantially lower than their population proportion, while the dropout rate among Hispanics was substantially higher. The findings were similar the previous year.

- Ninth and tenth grade students comprised the largest share of dropouts (and also of the population); relative to their numbers, however, ninth graders showed a lower-than-expected dropout rate.

- Students most at risk for dropping out were 10th and 11th graders. This was true for both years.

- The two districts with the highest annual dropout were C and A; D is intermediate, and B and E were the lowest. Proportionally, District E (magnet district) students were far less likely to drop out and far more likely to make normal progress than were other students.

- Highest dropout rates, in descending order, were observed in Burke, Dorchester, Jamaica Plain, Boston, South Boston, Madison Park, and Brighton. The order was similar in the 1984-1985 year.

- Highest transfer rates, in descending order, were observed in Burke, West Roxbury, Brighton, Charlestown, Jamaica Plain, Hyde Park, and South Boston.

III. Updates to Cohort Data for the Class of 1985

- The final cohort dropout rate for the graduating class of 1985 was 43.6%, up slightly from the figure announced in May.

- The updated figures reflected a slightly higher dropout rate and lower completion rate in the 13th year.

- As stated in the earlier report, the cohort dropout rate has been increasing steadily, paralleled by a decrease in transfers out.

IV. Cohort Analyses by Race for 1982-1985 Graduating Classes (New Data)

- Over the four cohort years studied, the rate of transferring out of BPS has decreased for Blacks, Whites, and Hispanics. The rate for Asians has been

too variable to permit generalization.

- Hispanics have had the highest transfer rate, followed by Whites. Blacks have had a substantially lower rate of transferring out over all four cohort years.

- With only very minor variations, the dropout rate has been increasing for all groups separately as well as systemwide.

- The dropout rates for the 9th grade student cohort entering in 1981 and expected to graduate in 1985 were as follows: Hispanics 51.9%; Blacks 44.3%; Whites 42.1%; Asian 26.5%; and the system average was 43.6%.

- Hispanics consistently had the highest dropout rate and Asian students the lowest across the four cohort years studied (graduating classes of 1982 through 1985).

- Rates of normal progress through the system (graduating on time, graduating late, or completing the 13th year) have been decreasing slightly in all groups except Asians whose rate has been highly variable.

Introduction

Last May, the Boston Public School system issued its first comprehensive report on the dropout problem in Boston. In it we presented the following: A review of the relevant research literature; statistical analyses of student loss; an evaluation of alternative prevention and intervention programs; and a bibliography. The statistical studies comprised several areas: Single year student loss for the four most recent school years; demographic descriptions of the population which drops out (for 1984-1985); studies of the causal factors associated with dropout (for 1984-1985); and cohort studies of dropout for the graduating classes of 1982-1985.

At the time of the first publication, the 1985-1986 school year was still in progress. Since complete data for the most recent year are now available, we are able to present a final 1985-1986 report updated in several areas: The single-year student loss rate; a demographic description of the dropout population (by gender, race, grade, district, and school); and final cohort data for the class which began 9th grade in 1981 and was expected to graduate in 1985. In addition, we are now able to show cohort data for the 1982-1985 graduating classes separately by race.

PART 1:

Updates to 1985-86

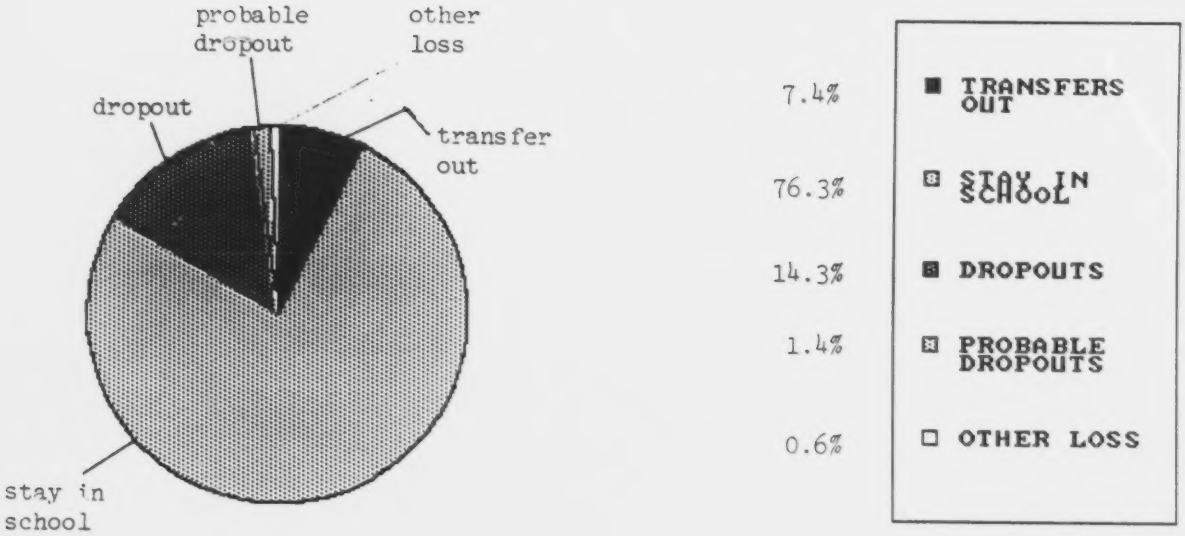
Student Loss Data

EXHIBIT 1

Summary student loss data for 1985-1986 are presented in Exhibit 1. Of the 20,213 9th-12th grade students enrolled during the year, 7.4% transferred to other systems; 14.3% dropped out; 1.4% were "probable" dropouts (had a "Did Not Report" discharge code or moved without a forwarding address); 0.6 % were in the "other loss" category; and 76.3% made normal progress. In comparison to the data we reported in May, the final overall dropout rate (dropouts plus probable dropouts) increased to 15.7% from the estimate of 12.9%, and there was a corresponding decrease in the percentage of students who stayed in school. The other loss percentages were essentially unchanged.

EXHIBIT 1

BPS STUDENT LOSS 1985-1986 GRADES 9-12



	# STUDENTS	PERCENT
TRANSFERS OUT	1,504	7.4%
STAYS IN SCHOOL	15 ,413	76.3%
DROPOUTS	2,885	14.7%
Sept - June	(1,950)	(9.6%)
Summer 1985	(935)	(4.6%)
PROBABLE DROPOUTS	284	1.4%
Sept - June	(97)	(0.5%)
Summer 1985	(187)	(0.9%)
OTHER LOSS/UNKNOWN	127	0.6%
TOTAL ENROLLMENT Sept - June:	20,213	100%

(a) Sept - June dropouts include all students with discharge dropout codes (i.e., over 16, marriage, work, military); summer droputs includes all students who never reported to school at all (i.e., DNR flags).

(b) Probable dropouts include all students who moved leaving no forwarding address between July 1985 and June 1986, as well as students with a DNR discharge code in the summer (probably carryovers from the previous academic year) or from September through June.

SOURCE: Office of Research & Development, October 1986

EXHIBIT 2

Exhibit 2 shows the detailed breakdown of student loss for the year grouped by category (transfers, dropouts, other loss, normal progress) and subcategory. Losses occurring during the summer of 1985 and during the academic year are shown separately.

As we noted earlier, a substantial proportion of student loss occurs during the summer. Approximately 34% of the dropouts withdrew during the summer of 1985. Additional analysis (not shown on the table) revealed that another 7% of the dropouts were among students who entered school after October 1. Such students represented only 3% of the total enrollment for 1985-1986, so they appear to be a high-risk group for dropout.

The most frequently occurring category of student loss (by a factor of almost 4) is dropping out due to being "over 16". Since all students turn 16, this category has no predictive importance. Rather, it simply groups various actual causes of dropout (e.g., pregnancy, lack of interest in school, etc.). Next most frequent are dropping out to go to work, transferring out of state, and transferring to other Massachusetts public schools. Other sources of loss drop off sharply in frequency.

EXHIBIT 2

1985-86 BPS STUDENT LOSS DETAILS

	SUMMER	ACADEMIC YEAR	TOTAL	
TRANSFERS	765	739	1504	(7.4%)
Boston Parochial	167	58	225	(1.1%)
Mass. Parochial	33	21	54	(0.3%)
Boston Private	48	37	85	(0.4%)
Mass. Public	231	286	517	(2.6%)
Mass. Private	38	22	60	(0.3%)
Outside Mass.	248	315	563	(2.8%)
DROPOUTS	1122	2047	3169	(15.7%)
work	179	424	603	(3.0%)
military	3	5	8	(0.0%)
over 16	740	1512	2252	(11.1%)
marriage	13	9	22	(0.1%)
DNR	71	38	109	(0.5%)
Moved/No Address	116	59	175	(0.9%)
OTHER LOSS	71	56	127	(0.6%)
expulsions	0	6	6	(0%)
home	9	11	20	(0.1%)
death	4	6	10	(0.0%)
other	58	33	91	(0.5%)
BPS ENROLLED/GRADS	254	15,159	15,413	(76.3%)
TOTAL	2,025	17,904	20,213	

SOURCE: Office of Research & Development, October 1986.

EXHIBIT 3

Exhibit 3 shows a comparison of annual dropout and transfer rates for the four most recent school years; it reflects relatively little change. Transfer rates have fluctuated around 7%. The total likely dropout rate for 1985-1986 is 15.7%. This is 1.2 percentage points more than in 1982-1983, but is somewhat less than the rates for 1983-1984 or 1984-1985. That is, BPS lost a somewhat smaller percentage of high school students in 1985-1986 due to dropout than in the two previous years.

In our earlier report we suggested that the dropout rate might be stabilizing, based on annual rate figures. We may now make that claim somewhat more strongly. However, we must limit it to annual rates, since the cohort studies revealed (see below) an increasing cumulative dropout rate trend for students who entered ninth grade, beginning in 1978 through 1981.

This apparent disparity in trends could come about in at least two ways. The first is that the dropout rate among students who have begun 9th grade since 1982 (i.e., the cohorts expected to graduate in 1986 through 1989) may be stable or may actually be decreasing with each new cohort. The second is that the dropout rate among students who have entered the system for the first time in grades 10-12 (and are therefore not included in cohort studies) may be stable or actually decreasing. In other words, the apparently different trends in the cohort studies vs. the annual rate studies may be due to (1) an actual decrease in the dropout rate of more recent 9th grade cohorts, or (2) a decrease in the dropout rate of new transfer students who enter BPS after 9th grade, or (3) both. In either case, this is a hopeful finding that lends some support to the notion advanced by the Office of Research & Development that the BPS dropout rates may be stabilizing. The first hypothesis cannot be tested until each cohort moves through the system; however, more detailed study of annual dropout information for students entering after 9th grade could provide some assessment of the second hypothesis.

EXHIBIT 3

Comparison of Student Loss, 1983-1986

	1982-1983	1983-1984	1984-1985	1985-1986
TRANSFERS	6.5%	6.7%	7.4%	7.4%
DROPOUTS	12.4%	15.6%	15.3%	14.3%
PROBABLE DROPOUTS	2.1%	1.3%	1.1%	1.4%
TOTAL LIKELY DROPOUTS	14.5%	16.9%	16.4%	15.7%

PART 2:

Who Drops Out?

1985-86

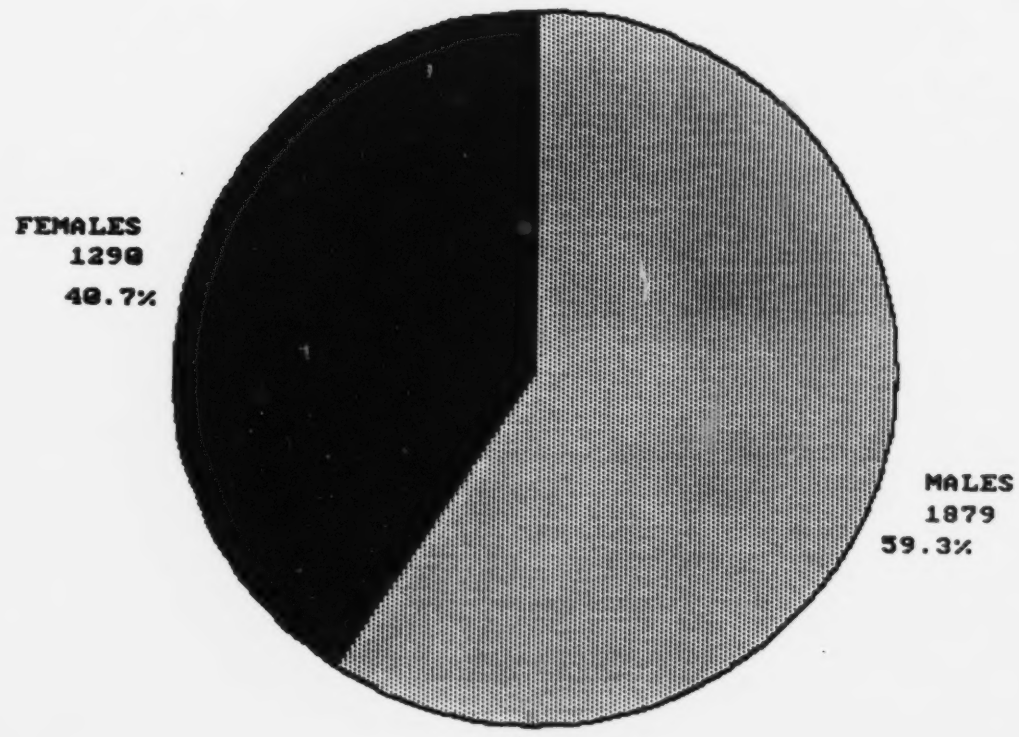
In our earlier report, we described the demographics of the student population who dropped out in the 1984-1985 school year. We can now present equivalent data for the 1985-1986 school year and compare the two.

EXHIBIT 4

Exhibit 4 shows a pie chart and table which break down the annual dropout rate by gender. Among dropouts, 40.7% were female and 59.3% were male. The results of the cross tabulation suggest strongly that males were more likely to drop out and less likely to stay in school than females were ($p < .00001$). These data are essentially identical to those for 1984-1985.

EXHIBIT 4

DROPOUTS BY GENDER 1985-1986



CROSS TABULATION, 1985-86 DROPOUTS BY GENDER*

Students Row % Column %	DROPOUT	TRANSFER	STAYS AT BPS
FEMALE	1290 13.4% 40.7%	705 7.3% 46.9%	7626 79.3% 49.5%
MALE	1879 18.0% 59.3%	799 7.6% 53.1%	7787 74.4% 50.5%

*Chi Square = 81.7, df = 2, P< .00001

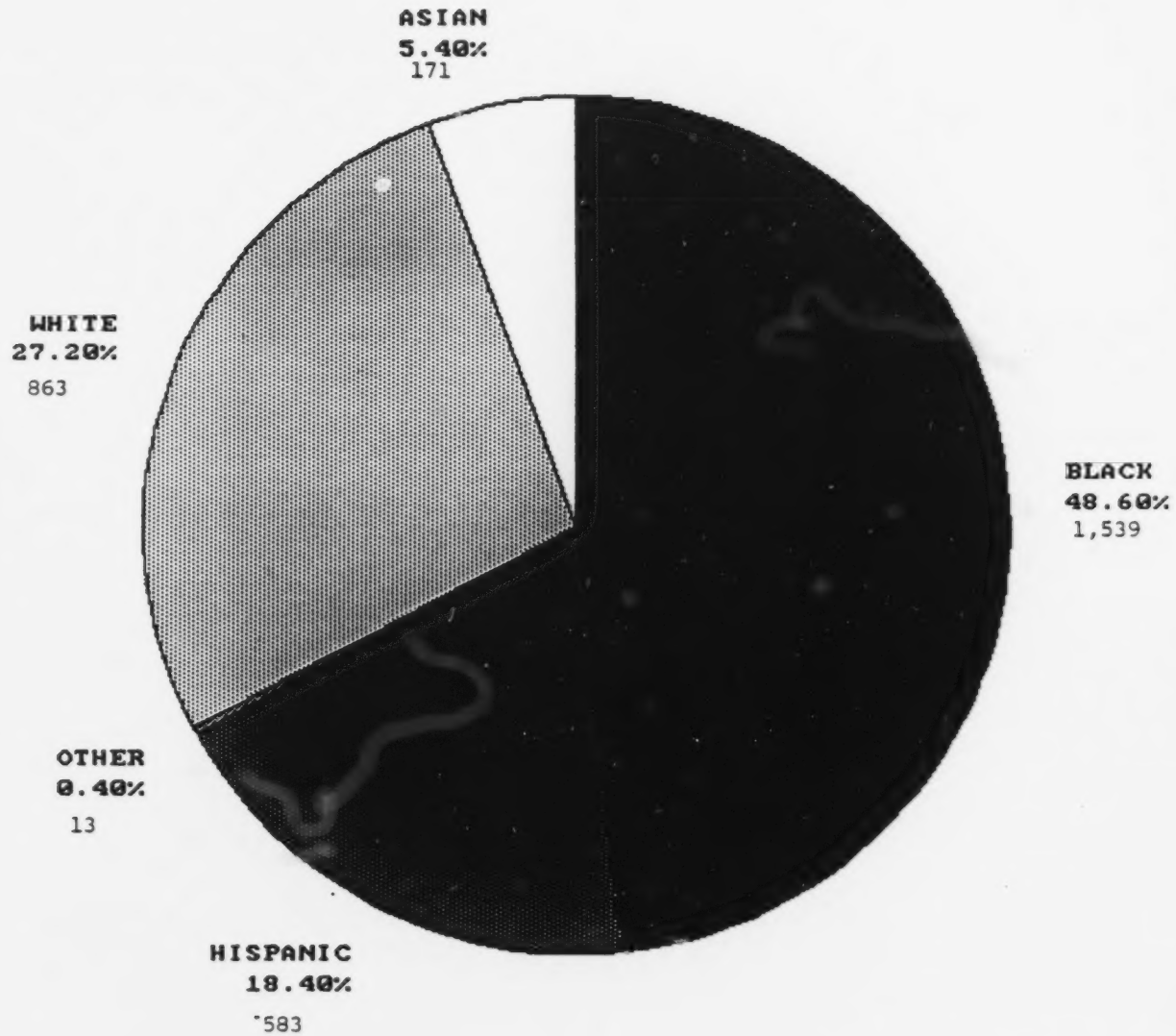
SOURCE: Office of Research & Development, October 1986

EXHIBIT 5

Exhibit 5 is a pie chart depicting the proportion of dropouts represented by each race group. Among dropouts for 1985-1986, 48.6% were Black; 27.2% were White; 5.4% were Asian; 18.4% were Hispanic; and 0.4% were classified as "Other". Particularly for Blacks and Whites, these proportions were close to their proportions of total student enrollment, as Exhibit 6 will show.

EXHIBIT 5

DROPOUTS BY RACE 1985-1986



SOURCE: Office of Research & Development, October 1986.

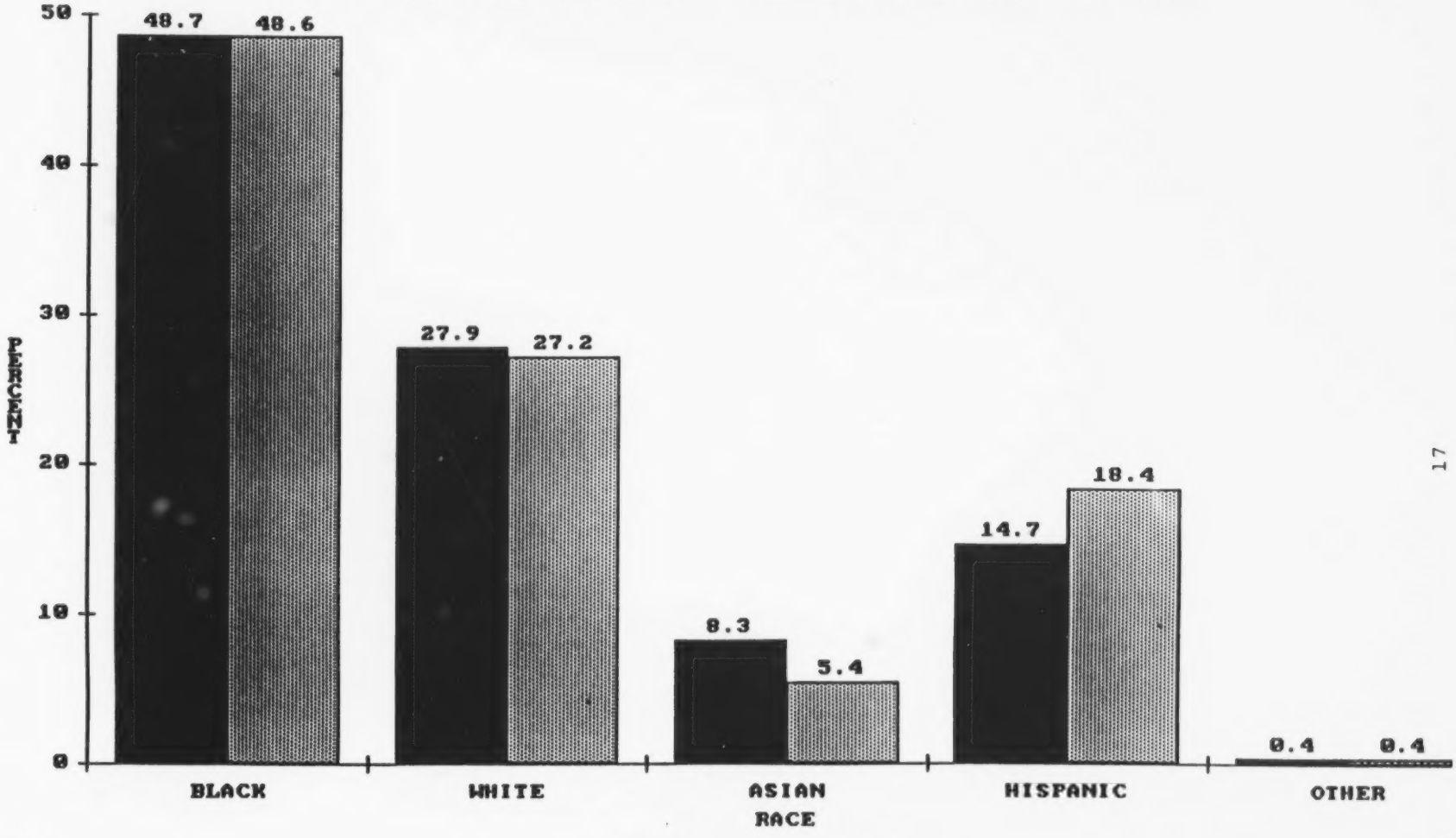
EXHIBIT 6

Exhibit 6 presents graphs which facilitate direct comparison of the racial percentages of dropout and of grade 9-12 enrollments in 1985-1986. First, it is evident that the proportions of Black, Hispanic, and Asian students in high school (i.e., minority students) at BPS continued to increase between 1984-1985 and 1985-1986. So did the dropout share for these groups. For Blacks, Whites, and students in the "Other" category, dropout percentages and their percentages of the student population were nearly identical. The proportion of Asian students among dropouts was approximately 35% less than would be expected from their share in the high school population, whereas for Hispanics some 25% more than expected dropped out; that is, Hispanic high school students continue to represent a disproportionately high percentage of the dropouts. The equivalent figures for the 1984-1985 data were -40% for Asians and +31% for Hispanics. In both cases, the dropout rates during the more recent year were less disproportionate than they were in the preceding year. It is too early to tell if dropout rates are tending to converge, but data from the end of 1987 should make this trend (if any) clearer.

What slight changes there were in dropout rates by race from one year to the next were paralleled by roughly proportionate changes in the population. For instance, the dropout rate was 1.0 percentage point higher for Blacks in 1985-1986 than in 1984-1985, but their share of the student population had also increased, from 48% to 48.6%. In summary, the conclusions with respect to racial distribution of dropouts are essentially identical for the last two years.

EXHIBIT 6

ENROLLMENT AND DROPOUT PERCENTAGES BY RACE 1985-1986*



*Enrollment includes all students enrolled July 1985 through June 1986. Chi Square = 158.6, df=8, $p < .00001$.

SOURCE: Office of Research & Development, October 1986

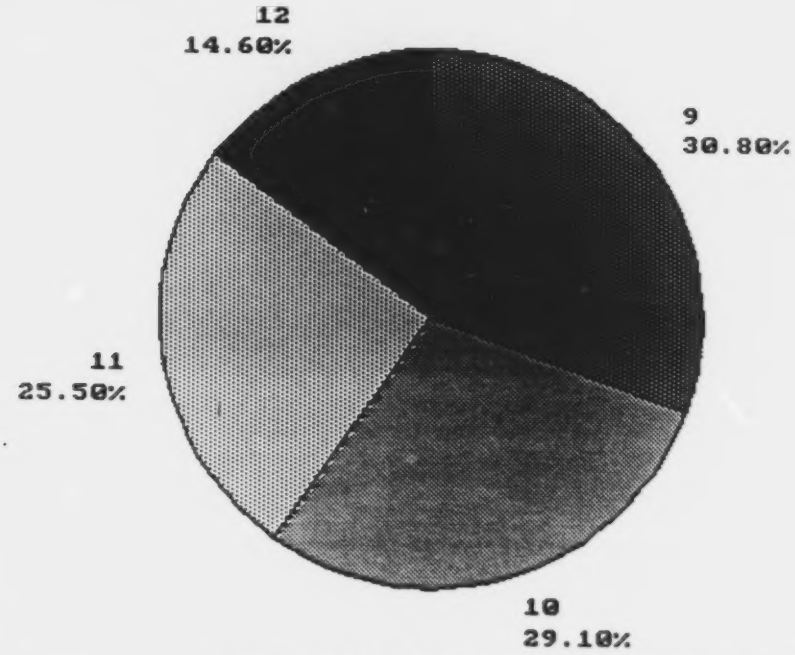
EXHIBIT 7

The top half of Exhibit 7 shows the share of dropouts represented by students at each high school grade level. As was true in the previous year, 9th and 10th graders represented larger proportions of the dropouts than did 11th and 12th graders. However, the student populations in those two years were also higher. In 1984-1985, 10th graders had the biggest share, followed closely by 9th graders. The reverse was the case for 1985-1986, but these differences are small.

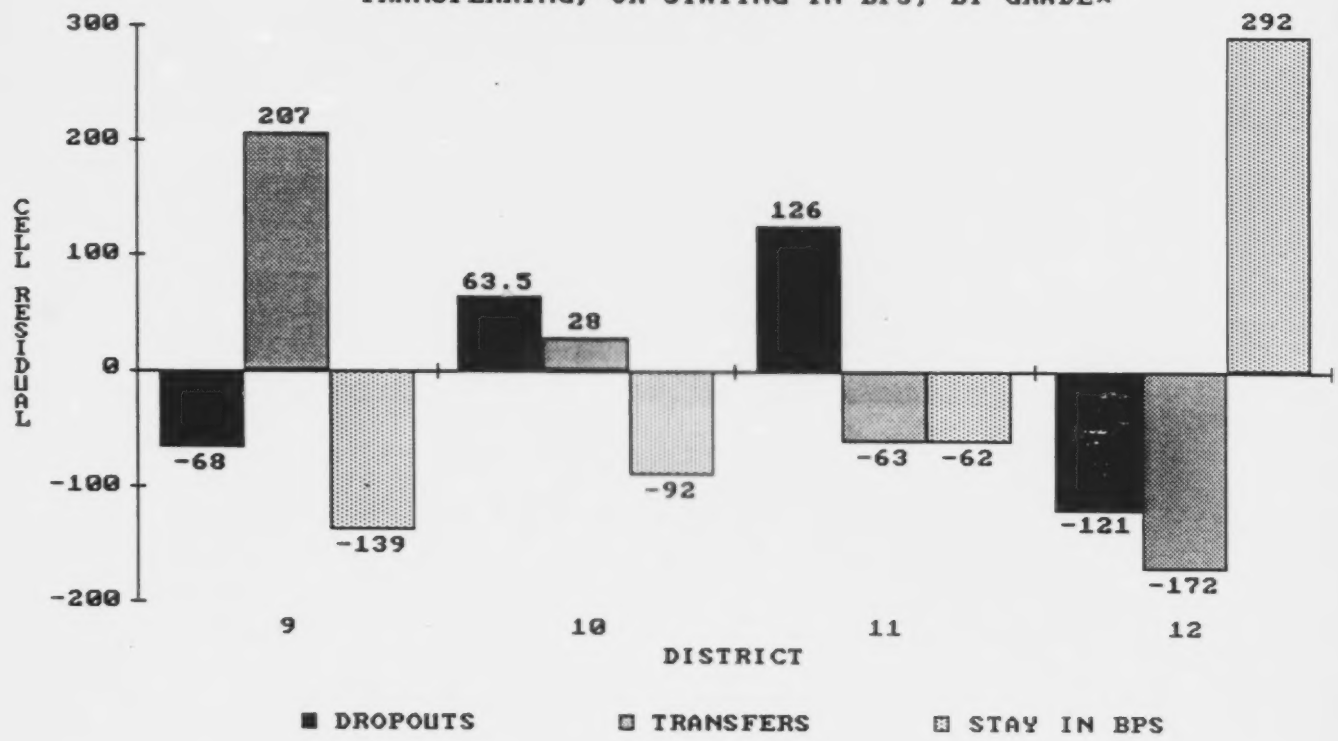
The bottom half of Exhibit 7 represents pictorially the differences between the expected numbers of dropout, transfer, and normal progress (based on proportions of these outcomes and the distribution of students across grade levels in the population) and the actual frequencies which occurred in 1985-1986. The patterns identified in the 1984-1985 data were found once again in the 1985-1986 data. In 9th grade, students were proportionally more likely to transfer than would have be expected. For 10th and 11th graders, dropout is occurring more than would have been expected, while students who made it to 12th grade were more likely to finish school normally.

EXHIBIT 7

DROPOUT BY STUDENT GRADE IN THE FALL OF 1985



1985-1986 LIKELIHOOD OF DROPPING OUT, TRANSFERRING, OR STAYING IN BPS, BY GRADE*



*Figures presented represent all residuals comparing expected dropouts or transfers by district (proportionately adjusted by enrollment) with actual dropout, transfers, and normal progress. Residuals are only used to depict the statistical effect (Chi Square = 301.1, df = 8, P< .00001)

SOURCE: Office of Research & Development, October 1986

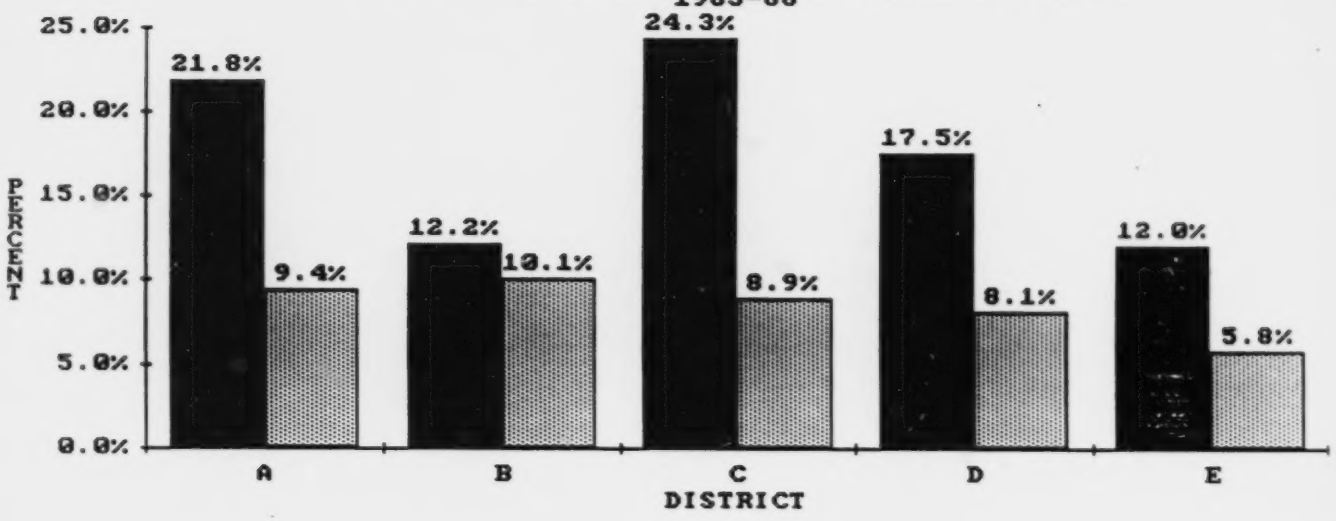
EXHIBIT 8

The top half of Exhibit 8 shows the proportions of students in each district who dropped out and transferred out. The highest proportion of dropouts occurred in District C (24.3%), followed by District A (21.8%). These two had almost identical dropout rates in 1984-1985 (22.5% and 22.6%, respectively). In both years, the decreasing order of dropout for the remaining districts was the same: D, B, and E. In both years, District B, which has one of the lowest dropout rates, had the highest transfer rate--10.1% for 1985-1986. In both years, transfer occurred in descending order for A, C, D, and E (the magnet district).

The bottom half of Exhibit 8 shows comparisons across the districts in the actual vs. expected rates of dropout, transfer, and staying at BPS. While the specific numbers shown differ from those of 1984-1985, the directions and approximate magnitudes of the deviations from the statistically expected amounts were the same in the last two years. For instance, in both years, students in Districts A and C were proportionally more likely, and students in E substantially less likely, to drop out than would have been expected based on their numbers alone. The magnet district (E) was the only one in which students were substantially more likely to progress normally than their numbers would predict. In evaluating this finding it should be remembered that District E contains the three examination schools as well as the other citywide magnet programs.

EXHIBIT 8

HIGH SCHOOL STUDENT LOSS BY SCHOOL DISTRICT, 1985-86



1985-1986 LIKELIHOOD OF DROPPING OUT, TRANSFERRING, OR STAYING IN BPS, BY DISTRICT*

*Figures presented represent all residuals comparing expected dropouts or transfers by district (proportionately adjusted by enrollment) with actual dropout, transfers, and normal progress. Residuals are only used to depict the statistical effect (Chi Square = 489.5, df = 8, P< .00001)

SOURCE: Office of Research & Development, October 1986

EXHIBIT 9

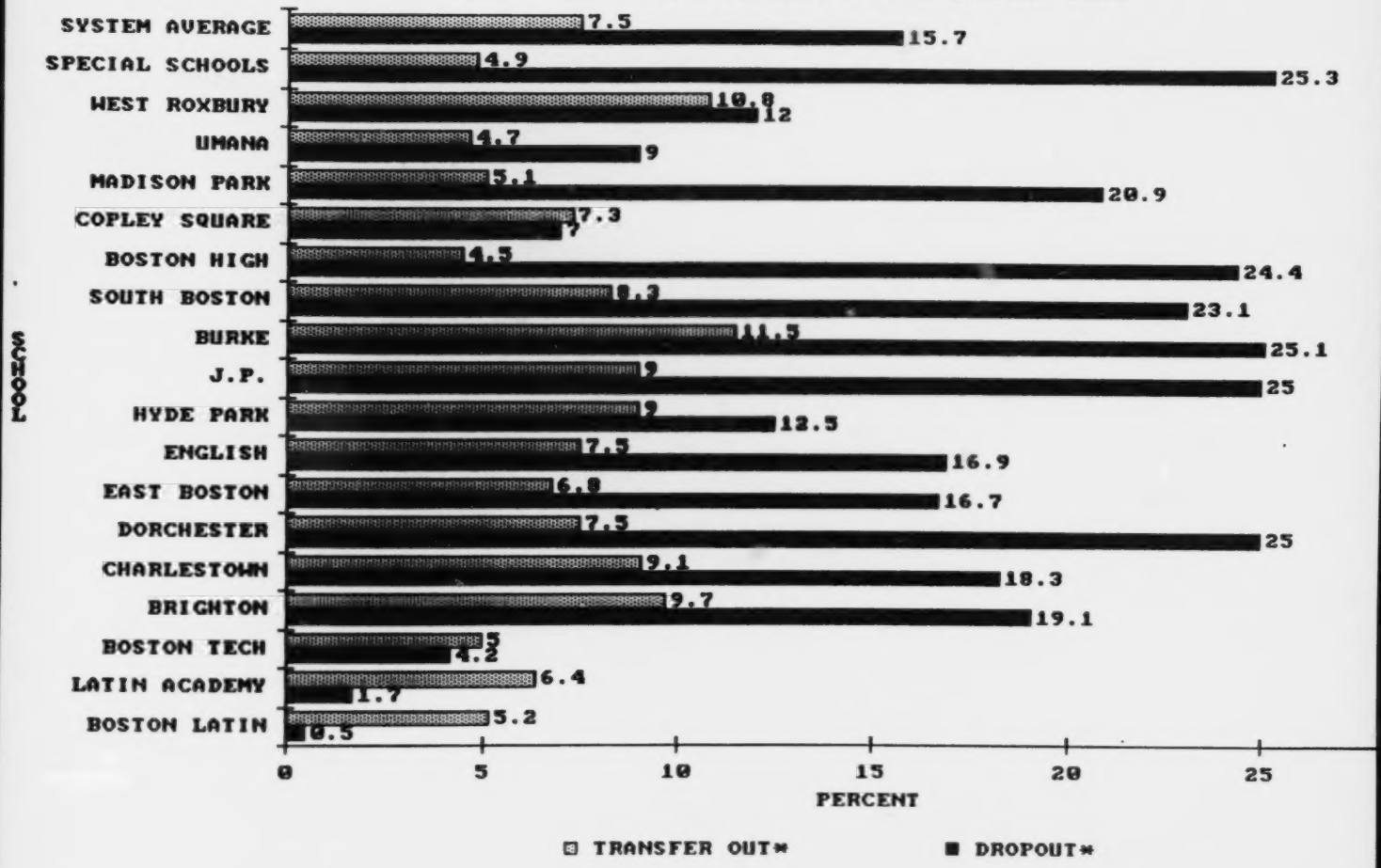
Exhibit 9 shows transfer and dropout rates separately for each high school. Four schools had dropout rates near 25%: Burke, Dorchester, Jamaica Plain, and Boston. South Boston was next, at approximately 23%, followed by Madison Park (20.9%) and Brighton (19.1%). Six of these seven, in almost the same order, had the highest annual dropout rates in 1984-1985: Burke (24.6%); Dorchester (24%); Boston (23.5%); Jamaica Plain (23%); Brighton (22.2%); and Madison Park (20.9%). The dropout rates were similar in the two years for most schools. Larger than typical changes were found for South Boston (up over 3 percentage points); Hyde Park (down 4.5 points to 12.5%); and Brighton (down almost 3 points). The dropout rate for students in the special schools (McKinley and Horace Mann) was 25.3%, up 5.4% over the 1984-1985 rate (It should be noted that the number of students is substantially smaller than for other high schools, so that percentage fluctuations will be larger).

In 1984-1985 the highest rates of loss through transferring out of BPS were the following: West Roxbury (9.9%); Dorchester (9.7%); Brighton (9.3%); Jamaica Plain (9.2%); Hyde Park (8.8%); Charlestown (8.6%) and South Boston (8.3%). Six of these seven schools were still among the highest in transfer rates last year: West Roxbury (10.8%); Brighton (9.7%); Charlestown (9.1%); Jamaica Plain and Hyde Park (both 9.0%); and South Boston (8.3%). Burke, which had a low rate in 1984-1985 (6.7%) had the highest rate in 1985-1986 (11.5%). Conversely, Dorchester's rate dropped substantially, from 9.7% to 7.5%, in 1985-1986.

Data concerning changes in either transfer or dropout annual rates must be interpreted cautiously. Until there are several years of comparable data, it is impossible to know whether these changes are simply random fluctuations or meaningful indicators of what is happening over time in an individual school.

EXHIBIT 9

1985-1986 HIGH SCHOOL STUDENT LOSS



*Expressed as a percentage of summative enrollment July 1985 through June 1986

SOURCE: Office of Research & Development, October 1986

PART 3:

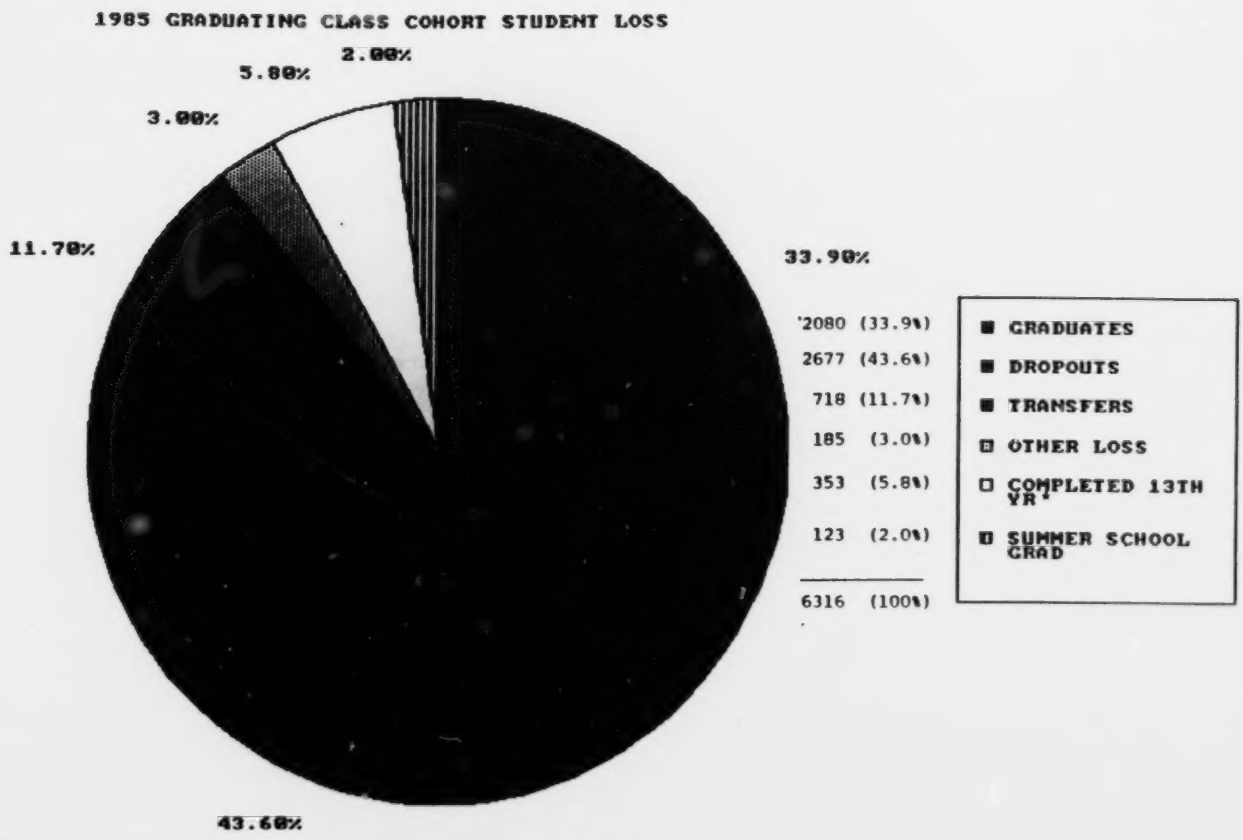
Updates to Cohort Data for the Class of 1985

As noted in our earlier report, cohort studies are the most appropriate way of assessing dropout trends over time.

EXHIBIT 10

Exhibit 10 contains a pie chart and statistics for students who entered 9th grade in 1981 and were expected to graduate in 1985 (followed for a fifth year to 1986 in order to include those who were not promoted at any time during their high school tenure). This method tracks outcomes for students for 5 full school years after they originally start grade 9. These figures reflect very slight changes from those announced in May. The combined dropout rate (which includes the "probable" dropouts) is now 43.6% rather than the 43% previously reported, which was based on data through April. Correspondingly, there was a slight decrease in the proportion of students who stayed through a 13th year.

EXHIBIT 10



*Dropouts and transfers of 13th year students are included in the dropout and transfer statistics.

EXHIBIT 11

Exhibit 11 shows the detailed year by year progress of the 1985 graduating class cohort. The update only affected the figures for the 13th year, 1985-1986, and is reflected in the higher proportion of total dropouts (36.6% vs. 31.7% reported in May) in the 13th year, as well as the lower proportion of students completing the year (44.4% vs. 49.4%).

EXHIBIT 11
1982-1985 Graduating Class Cohort
Student Loss Details

Year

1981-82 9th Grade (base=6136)			1982-83 10th Grade (base=5575*)	
Transfers Out =	224	3.7%	319	5.7%
Dropouts =	(372)	(6.1%)	(747)	(13.4%)
Prob. Dropouts=	(58)	(0.9%)	(92)	(1.7%)
Total Dropouts=	430	7.0%	839	15.0%
Other =	53	8.6%	89	1.6%
Stay at BPS =	5429	88.5%	4328	77.6%

*Baseline shows an enrollment increase of 146; these are students who re-entered BPS after leaving or changed their discharge codes (i.e., changed their minds to leave).

1983-84 11th Grade (base=4739)			1984-85 12th Grade (base=3674)	
Transfers Out =	192	4.1%	108	2.9%
Dropouts =	(964)	(20.3%)	(650)	(17.7%)
Prob. Dropouts=	(36)	(0.8%)	(24)	(0.6%)
Total Dropouts=	1000	21.1%	674	18.3%
Other =	22	0.5%	17	0.5%
Stay at BPS =	3525	74.4%	795	21.6%
Graduates =	-	-	2080	56.6%

*Baseline shows an enrollment increase of 411; these are students who re-entered BPS after leaving or changed their discharge codes (i.e., changed their minds to leave).

1985 13th year (base=795)			Summary		
Transfers Out =	24	3.0%	8	11.7%	11.7%
Dropouts =	(280)	(35.2%)	--	--	--
Prob. Dropout =	(11)	(1.4%)	2677	--	43.6%
Total Dropout =	291	36.6%	185	3.0%	3.0%
Other =	4	0.5%	2556	--	41.7%
Stay at BPS =	-	-	6136*		
Summer Grads =	123	15.5%			
13th Year Enrollees =	353	44.4%			

*706 students appear to have re-entered BPS after leaving. This "loss regained" has been proportionately allocated to transfers out and to dropouts (.2114 for 151 transfers; .7886 for 555 dropouts).

Note: %'s may not total exactly 100% due to rounding error.

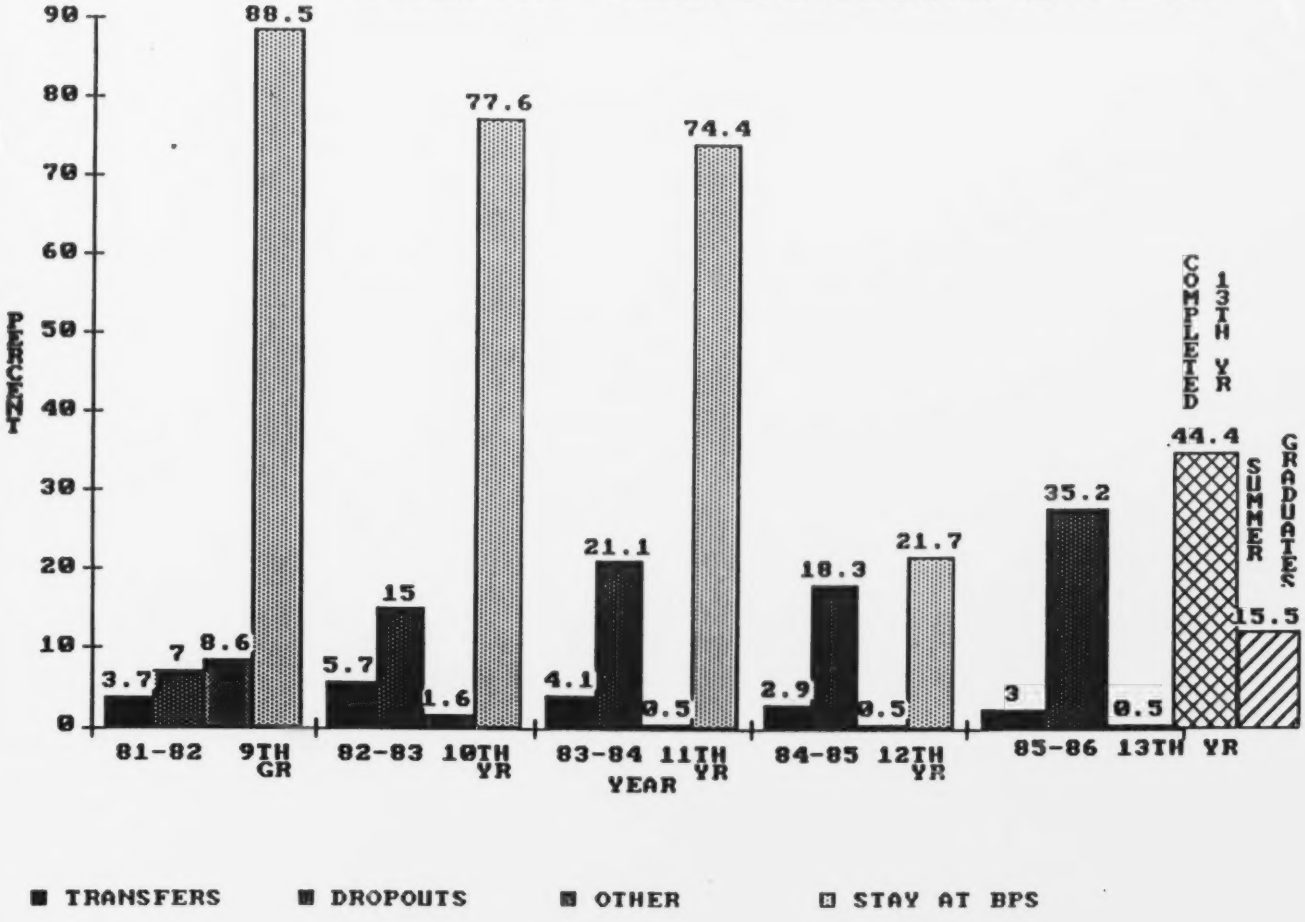
Source: Office of Research & Development, October 1986

EXHIBIT 12

Exhibit 12 is a graphic presentation of the 1985 cohort's progress over the years. Our earlier conclusions still hold: The proportion of students dropping out increased from 9th through 11th grades, decreased somewhat in 12th grade, and then increased again in the 13th year; the proportion progressing in BPS (staying on or graduating) decreased each year. Transfers peaked in the 10th grade year and then leveled off around 3%.

EXHIBIT 12

STUDENT LOSS DETAILS: 1985 GRADUATING CLASS COHORT



SOURCE: Office of Research & Development, October 1986

EXHIBIT 13

Exhibit 13 is a table which allows an historical comparison of the trends in cohort rates of dropout, transfer, other loss, graduation on time, summer graduation (after 12th grade), and completion of a 13th year in BPS. Dropout rates have increased steadily, from 36.2% for the 1982 graduating class to 43.6% for the 1985 cohort. Transfers have gradually decreased from 13.5% to 11.7% during the same time period. Other losses have decreased from 6.3% to 3%. Summer graduation has fluctuated around 2% and completion of a 13th year around 6%. The graduation rate decreased in the 1982 to 1984 cohorts, but appears to have stabilized at 33-34%.

In May we stated that the rate of 13th year completion had increased over time, but that conclusion is no longer warranted. Our data still support the need for increased supports for at-risk students. While the graduation rate appears to have stabilized and the transfers out seem to be decreasing, more and more students are quitting school.

EXHIBIT 13

BPS Student Loss, Graduating Classes of 1982-1985
(Cohort Method)

Graduating Class Cohort	Dropout	Transfer	Other Loss	Graduates	Summer Grads.	Completed 13th Year
1982	36.2%	13.5%	6.3%	36.6%	1.6%	5.3%
1983	38.0%	13.4%	4.8%	34.4%	2.7%	5.6%
1984	40.7%	12.3%	4.3%	33.1%	3.0%	6.6%
1985	43.6%	11.7%	3.0%	33.9%	2.0%	5.8%

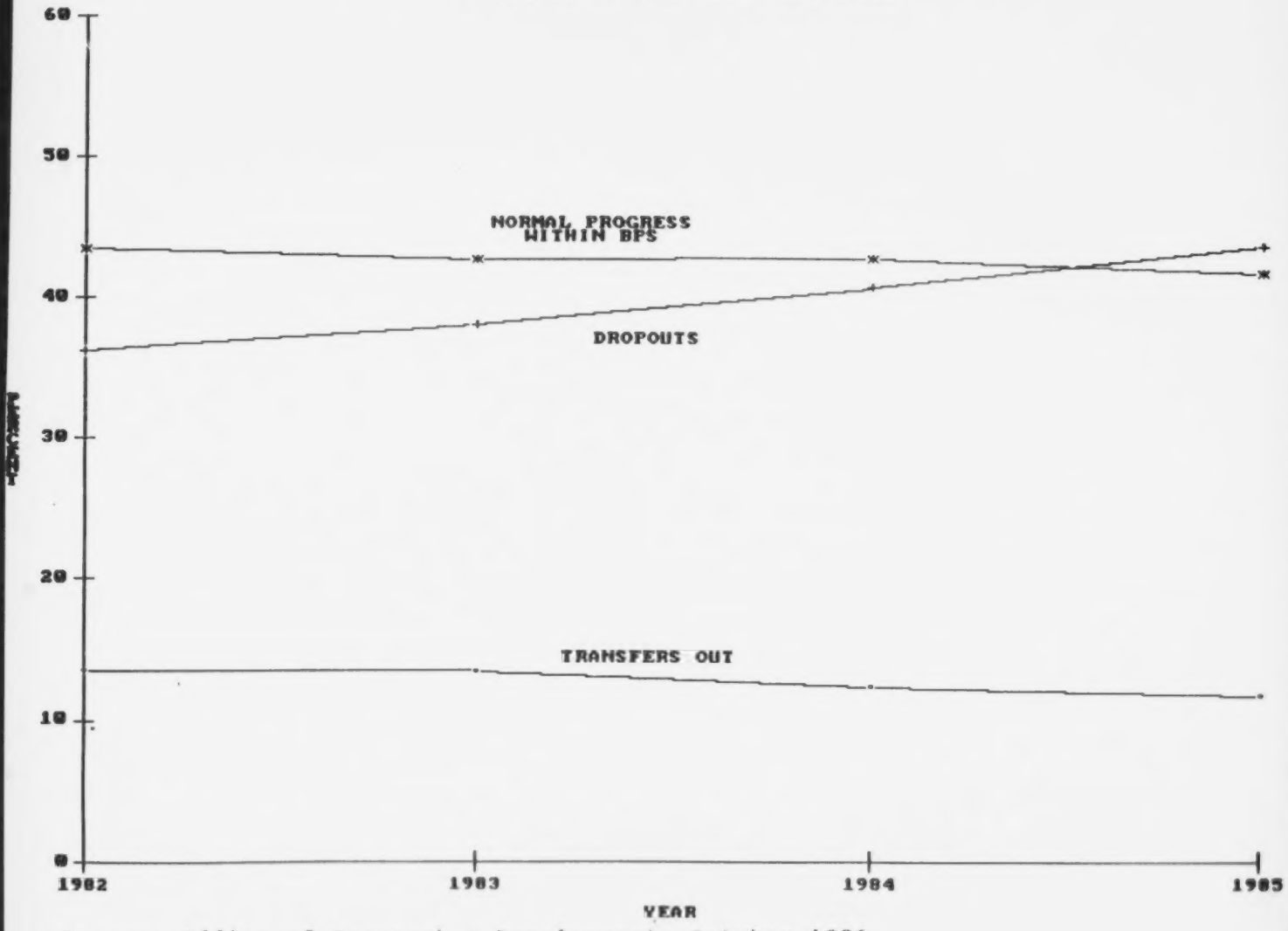
EXHIBIT 14

Exhibit 14 shows graphically the trends which have just been presented in Exhibit 13. If anything, it shows a slight acceleration in the ongoing trends of decreasing transfers out and normal progress (staying in school or graduating), and increasing dropout between the graduating class cohorts of 1984 and 1985. The 1985 cohort was the first group in recent years in which more students were lost to dropout than moved through BPS normally.

Cohort studies performed for the graduating class of 1986 (after the completion of the 1986-1987 school year) may help resolve some of the apparent contradiction between stabilizing annual dropout rates and increasing cohort rates which we noted earlier. They should also indicate whether the apparent acceleration in cohort dropout rates from 1984 to 1985 is maintained or changed.

EXHIBIT 14

TRENDS IN STUDENT LOSS: 1982-1985



Source: Office of Research & Development, October 1986

PART 4:

Cohort Analyses by Race

After the end of the 1985-1986 school year, we also performed cohort analyses separately for Blacks, Whites, Asians, and Hispanics, for the graduating class years of 1982 through 1985 (the number of "other" students was too small to permit reliable analysis). The method used was identical to that shown in detail for total student populations in Exhibits 11 and 12, above. If there was student "loss regained" (students who re-enrolled after leaving); it was reallocated using the dropout and transfer proportions for the particular racial group analyzed (see explanation in Exhibit 11) . Because of the sheer volume of data, the detailed presentations are omitted here. However, Exhibits 15, 16, and 17 show very clearly the cohort trends in transfer, dropout, and normal progress. In each case, the results for all students together are shown on the right side of the exhibit to facilitate comparison.

EXHIBIT 15

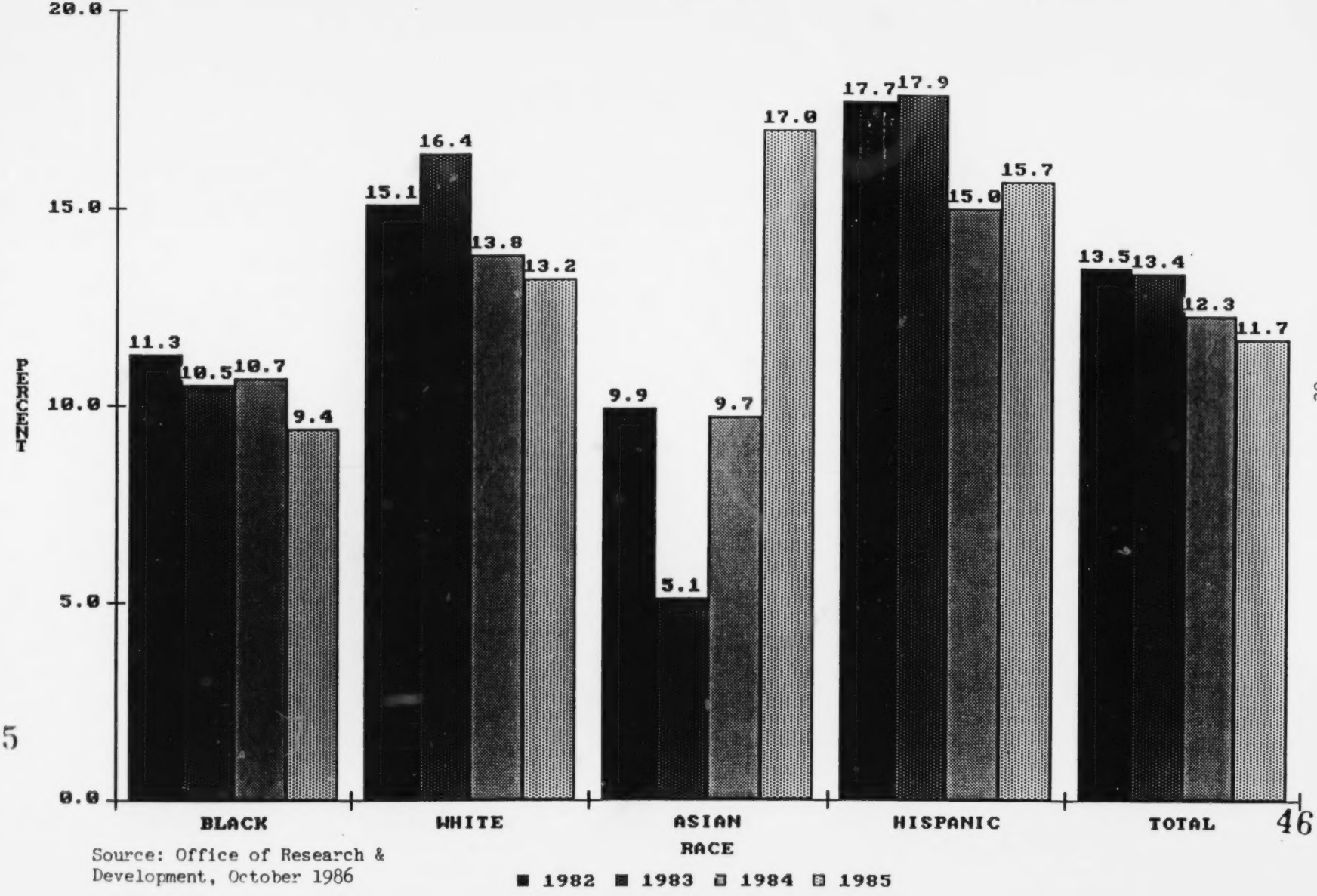
Exhibit 15 documents the changes in cohort rates of transferring out of BPS. The overall trend has generally been a decrease in transfers out, as is clearly seen in the results for the total population. Blacks, Whites and Hispanics roughly reflect this pattern. For Asians the reverse appears to be the case. However, it should be noted that they are the smallest group at BPS and therefore the results may fluctuate widely when percentages are calculated. The cohort study for the 1986 graduating class (which will not be available until the summer of 1987) should help determine whether the radical jump in transferring out for Asians (from 9.7% in the 1984 cohort to 17% in the 1985 cohort) reflects a true trend or is simply a random fluctuation.

The data clearly show that the transfer rate among Hispanics has been proportionally highest, followed by that of Whites. The rate for Blacks has been lower. Because of the great degree of fluctuation among Asian students, caution must be exercised in attempting to generalize about their transfer rate relative to that of the other groups. The cohort of Asian students expected to graduate in 1985 had the greatest transfer out rate among the four groups; however, for the 1982 through 1984 graduating classes the rate of transferring out was lower for Asians than for any other group.

These data do not allow us to state whether the higher overall transfer rates for Hispanics and Whites occur due to their leaving the area altogether or to their transferring to non BPS schools in or near Boston. Such an analysis (which can be done) would provide a more precise look at just how the loss of BPS students to other schools is coming about.

EXHIBIT 15

CUMULATIVE TRANSFERS FROM BPS BY RACE FOR 1982-1985 GRADUATING CLASSES



Source: Office of Research & Development, October 1986

EXHIBIT 16

Exhibit 16 shows the racial breakdowns for the cohort rate of dropout. As noted earlier, the total rate of dropout increased steadily as each cohort moved through the system. The pattern of change for all student groups has been essentially the same: upward. However, the rate of this change has varied across groups.

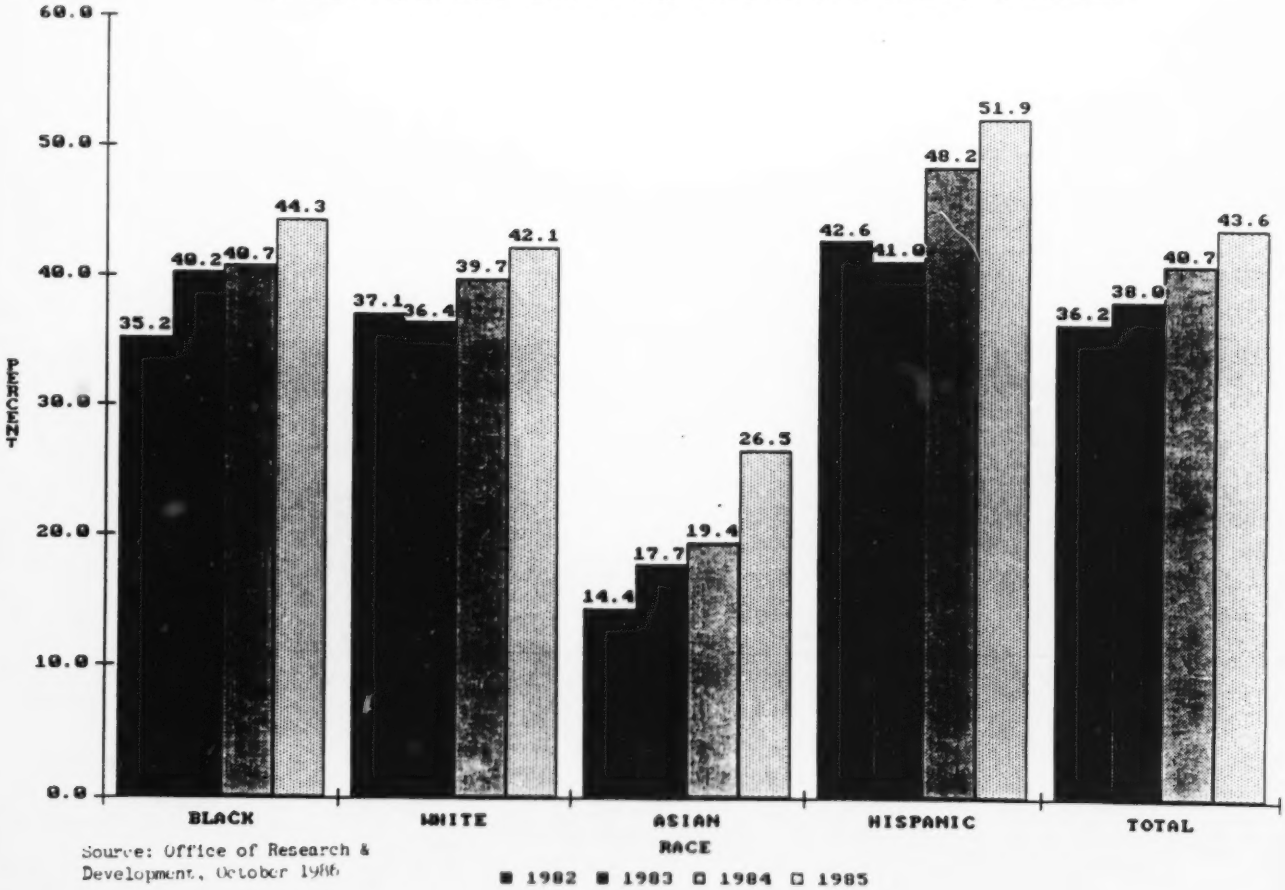
To make comparisons in changes across the four groups, it is appropriate to examine the percent change across time. For all BPS students the 1982 graduating class cohort's dropout rate was 36.2% and in the 1985 cohort the rate was 43.6%. The difference (7.4 percentage points) represents a 20.4% increase over the base of 36.2 percentage points. The increase over the four years studied was highest for Asians (84.0%, though their absolute rate remained by far the lowest of all groups) and lowest for Whites (13.5%). The increase for Blacks was 25.9% and for Hispanics it was 21.8%.

The relative relationships have remained the same over the years. In each year, Hispanics have had the highest dropout rate. In the two most recent years their difference from other groups has been increasing relative to what it was for the first two cohort years. Clearly Hispanic students have historically (for the time period covered) been at higher dropout risk than other students, and the problem appears to be growing worse. Combined with the data on transfers (also highest among Hispanics) these data suggest a serious problem in BPS's ability to retain Hispanic students through to graduation.

Asian students in the period studied have always had by far the lowest dropout rate, but, as noted above, their rate has been growing faster than that for any other group. The percentage change was calculated against a smaller base than was the case for the others (14.4% in 1982, vs. 35.2% for the next lowest group), which would tend to make any percentage change appear greater, but we do not believe that the sharp increase is solely due to a statistical artifact. Recent changes in the composition of the Asian student group may well be affecting the dropout rate. Before the influx of Southeast Asian students (e.g., Vietnamese, Cambodian) which occurred in the late 1970's and early 1980's, the Asian group was comprised largely of U.S. born second and third generation Chinese students. There is no

EXHIBIT 16

CUMULATIVE DROPOUT RATE BY RACE FOR 1982-1985 GRADUATING CLASSES



Source: Office of Research & Development, October 1986

a priori reason to assume that there has been a substantial increase in dropout among this segment of the Asian student community. Rather, it seems likely that the recent immigrants are a substantially higher dropout risk than the numbers for the overall Asian student group show. As the recent immigrant proportion of the Asian students increases, we may expect to see continued increases in the Asian dropout rate. Our data do not allow us to differentiate among subgroups of Asian students in order to test our hypothesis directly at this time, but study of this problem is urgently needed.

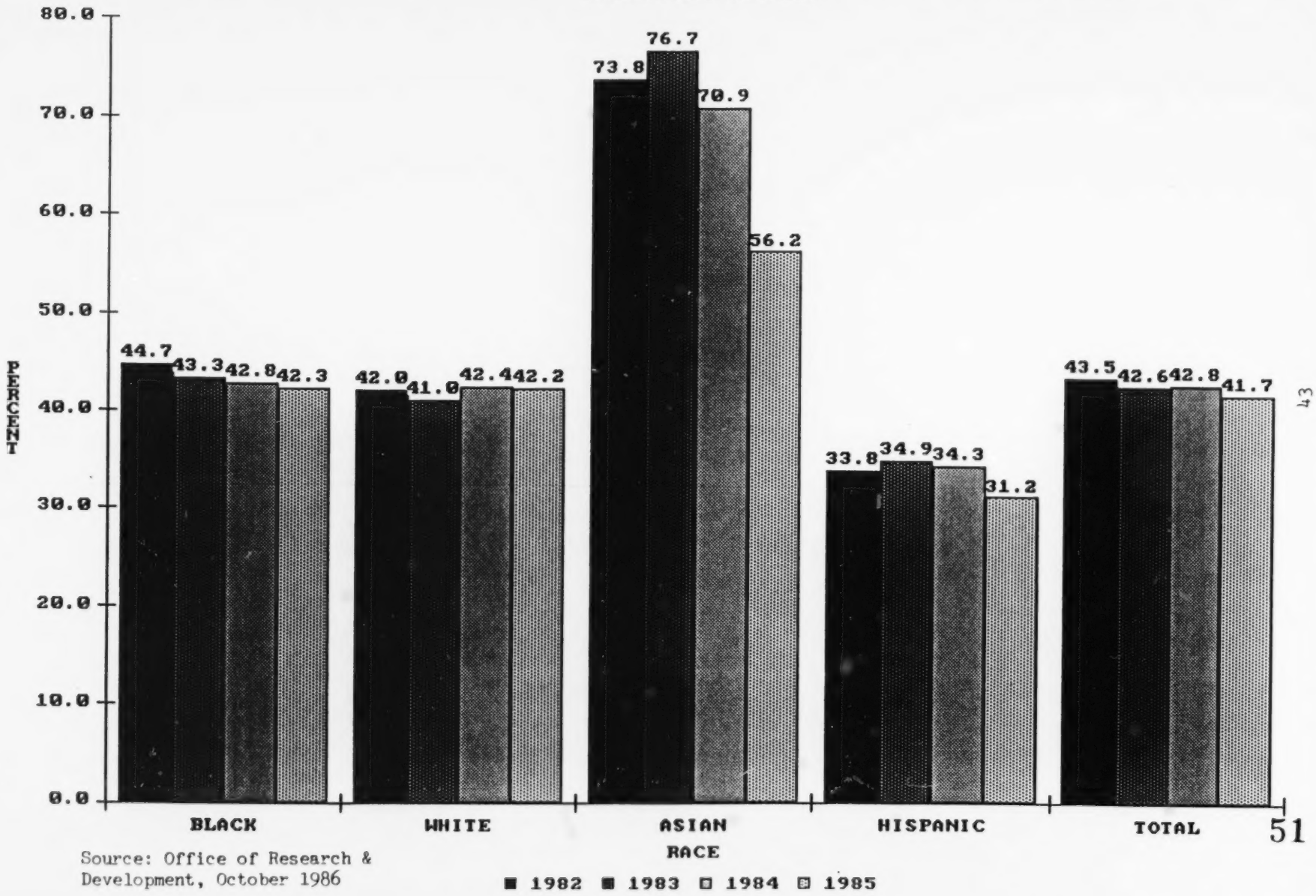
It is not surprising that the cohort dropout rates for Blacks and Whites are closest to those for the total student group, since they are the two largest groups of students. Still, the large increase for Blacks from 1982 to 1985 is cause for concern; Hispanics, starting from the highest base of all, show a substantial increase as well. Indeed, no group of students is immune from this serious problem.

EXHIBIT 17

Exhibit 17, which shows the cohort rates of progressing normally through the system, shows a pattern of slight decrease over time for the total population and for Blacks, Whites, and Hispanics. This result is not surprising, given the pattern of generally decreasing transfer and increasing dropout. The one apparent exception was Asian students. Although their rate of normal progress started out and remained higher than that of any other group, they showed an apparent huge decrease from the 1984 to 1985 cohort year. This results from the substantial increase in dropout (which is probably a valid finding, since it continues a clear trend) and the enormous apparent increase in transferring out (which does not so clearly reflect a trend) during the same time period. Again, results from the 1986 cohort study should help clarify this picture.

EXHIBIT 17

CUMULATIVE RATES OF NORMAL PROGRESS IN DPS BY RACE FOR 1982-1985 GRADUATING CLASSES



Source: Office of Research & Development, October 1986

PART 5:

Conclusions & Implications for Further Research

Taken together, the present report and the earlier one have advanced our understanding about the actual incidence of student loss and the factors, both demographic and causal, associated with it. We have also brought together some of the research literature and identified dropout prevention programs which work. Some tentative conclusions are now possible.

1) Our data provide a strong suggestion that there are many different subgroups among those who drop out. Programs to address the dropout problem need to be targeted to different groups and designed accordingly.

2) Though we know much more than we did, what we don't know still limits our capacity to respond. BPS should give consideration to changing the student loss "reasons" categories. The single most frequently occurring category, "over 16" in fact describes a legal status and not a reason for dropping out. For example, we have no direct way of knowing how much premature pregnancy contributes to dropout for girls (and, for that matter, for the boys involved).

Our data suggest that there may well be different "paths" to dropping out. School failure and "getting into trouble" (discussed in the earlier report) comprise one. Economic hardship is probably another--a student may be performing adequately in school, but helping to provide basic necessities for his/her family may well take precedence. Developing more informative dropout categories would help BPS gain the clearer understanding needed to design truly effective programs with an appropriate mixture of approaches.

3) A change in the student withdrawal categories would have the side effect of making future data not comparable with previously-collected data. In our view, since the existing data are so limited, the benefits would far outweigh any such concerns.

4) One step in developing more useful student withdrawal categories would be to perform an interview

study of students who have left the system and a matched group of those who stay. Such studies are expensive and difficult; again, the potential gains would seem to be worth the effort and expense.

5) Short of the time-consuming and expensive actions just listed, there are several possible approaches to studying dropout which could be done assuming only the present resources and data bases.

a) Cohort and annual rate studies should be performed annually. As noted several places in the present report, these continuing studies will help separate temporary, essentially random variations from meaningful change.

b) It would be desirable to try to resolve the apparent contradictions between the implications of the annual rate studies (stabilizing dropout rates) and the cohort studies (steadily increasing dropout). Quite possibly, the cohort dropout rates of students who enter in 10th grade or 11th grade may differ from those we have observed.

c) While less of a problem than dropout, transfers are still student loss. Where the loss is to other nearby schools it reflects a lack of holding power by the BPS. Detailed study of transferring out by race may provide better clues as to why it happens and possibly lead to some constructive ideas for improving the retention of BPS students.